The JOURNAL OF EDUCATIONAL SOCIOLOGY

A MAGAZINE OF THEORY AND PRACTICE

NOVEMBER 1934

THE JOURNAL OF EDUCATIONAL SOCIOLOGY

Permanent Departments

Research Projects and Methods in Educational Sociology, FREDERIC M. THRASHER, *Editor*

A department that will give an opportunity for a short report of each research in process in the colleges and universities, so that those immediately concerned may become familiar with the type of work that is in progress.

Book Reviews, HARVEY W. ZORBAUGH, *Editor*

A department for the purpose of presenting to the teaching profession a real estimate of the latest books in the field. The editor will strive to obtain frank criticism and critical estimates of the books published.

THE JOURNAL is published by The Journal of Educational Sociology, Inc., monthly from September to May, inclusive. Publication and business office, Room 41, 26 Washington Place, New York, N. Y. Editorial office, Room 42, Press Building, New York University, 32 Washington Place, New York City.

The subscription price is $3.00 per year; the price of single copies is 35 cents. Orders for less than half a year will be charged at the single-copy rate.

Entered as second-class matter September 27, 1934, at the Post Office at New York, N. Y., under the Act of March 3, 1879.

The contents of previous issues of THE JOURNAL OF EDUCATIONAL SOCIOLOGY *may be found by consulting the* Education Index *or the* Public Affairs Information Service.

PRINTED IN THE U. S. A.

The JOURNAL of EDUCATIONAL SOCIOLOGY

A Magazine of Theory and Practice

VOL. VIII NOVEMBER 1934 No. 3

EDITORIAL

In last month's editorial comment I expressed the view that we have little hope of the contributions of the schools to the development of a constructively planned social order and no hope that educators themselves would be able to make the school an instrument for effecting economic and social changes of a fundamental sort.

This judgment was based wholly on the assumption that the type of training to which school people had been subjected leaves them without the information on economic and social problems and the point of view that would be necessary in order to give direction towards a planned social order. It was also indicated that there is not likely to be any radical change in the situation in the near future. This emphasis, however, left wholly out of account the fundamental principle involved, namely, the function of the school as an agency of control and direction, and dealt with the practical question as to the possibility of an early contribution in that direction.

There was, therefore, in this discussion no intention of expressing an opinion on the various points of view with reference to the function of the school in a planned social order. The editorial of the *Elementary School Journal* states these views adequately as follows:

> First, there are those who would make the school an instrument of social, economic, and political quietism. To them the social mission of the school is the main-

tenance of the status quo. They would deny to teachers freedom of discussion of vital current social and economic problems. They would have the school develop in youth an emotional attachment to the prevailing social philosophy and an uncritical acceptance of the order of things as they find it. A second group, and one which has pressed its point of view vigorously in recent months, insists that the school be made an instrument for implementing such social policy as teachers may deem desirable. The members of this group would have the teachers of the nation formulate a plan of social reconstruction, and they would employ the school as a means of carrying that plan into operation. They place squarely on the school the responsibility of creating a new social order. A third group, composed of progressive realists, regards the development of social intelligence as the essential social mission of the school. These people would extend to teachers and pupils alike complete freedom of discussion of all issues and all institutions, the social and intellectual immaturity of pupils being the only bar to such discussion. They would have pupils trained to gather evidence and to evaluate it critically. They believe that it is the function of the school to make the pupil as intelligent as possible with respect to the social order in which he is to live, but they believe that the school cannot and should not press upon the pupil the acceptance of specific plans of social organization or specific formulas for the solution of social problems. They believe that a citizenry with a critical understanding of the existing pattern of economic and social organization can be trusted to formulate and to carry into execution its own social policies.

This editorial also quotes a statement by Professor Charters which presents its own view. The statement is too long to repeat in this editorial but it takes a position which appeals to me as the only one possible; namely, that the discussion and intelligent understanding of problems in so far as the pupils in various stages can understand them is all that we may expect from the school. Even the accomplishment of this will require that teachers become more adequately informed on economic and social problems. My whole contention, and one that has been emphasized continuously in the pages of this JOURNAL, is that teachers are perhaps less well informed on social matters than any other group of intellectuals and the reason for this is the fact that the whole training curriculum is directed primarily towards the more adequate instructions in conventional curricula and places little emphasis upon the method and technique of personality development.

E. G. P.

MARRIAGE IN ANCIENT CHINA

RAY ERWIN BABER

New York University

Family solidarity is the cornerstone of Chinese culture. For many centuries the family pattern has so dominated every phase of social organization—government, labor, religion, education—that an adequate treatment of Chinese family life would call for a study of the whole social order. Manifestly, one short article cannot cover such a scope. However, the social *regulations* that grow up about the family institution are a fairly clear reflection of the family *ideal* that is fixed in the minds of the people. Therefore, these regulations should reveal, to a considerable extent, the broader family pattern, even though some factors must be omitted from the picture and the interpretation of others kept to the barest minimum. The great sweep of time which Chinese history covers, and the differences in customs to be found in a country so vast, make it necessary to use only data which have applied to a considerable area and for a considerable period of time.

MARRIAGE PROHIBITIONS

One of the earliest marriage prohibitions, and one surviving to this day, was that forbidding persons of the same surname to marry. An imperial decree of 484 A.D. states that this rule was promulgated far back in the Chou dynasty, which was from 122 to 255 B.C.[1] Any one marrying within his clan received sixty blows, and the marriage was declared null and void. It was feared that such mating would produce weak offspring, in spite of the fact that the bearing of the same name often did not afford the slightest presumption of a common ancestor.[2] In early times

[1] E. T. C. Werner, *Descriptive Sociology of the Chinese*, compiled and abstracted on the plan organized by Herbert Spencer (London: Williams and Norgate, 1910), p. 24.

[2] Christopher Gardner, "Chinese Laws and Customs," *Journal of the Royal Asiatic Society of Great Britain and Ireland*, n.s., 15:221-236, 1883.

there was an effort to prevent interclass marriage. Particularly were officials forbidden to marry actresses or singing girls. But these prohibitions were nowhere strictly observed, and no caste system resulted therefrom. Officials and nobles heeded them least of all. Said Marco Polo, speaking of Kansu Province, "No matter how base a woman's descent may be, if she have beauty, she may find a husband among the greatest men of the land, the man paying the girl's father and mother a great sum of money, according to the bargain that may be made."[3]

A man could not marry his sister's or brother's daughter, on pain of severe punishment. In fact, marrying within the prohibited degree of relationship might bring the death penalty; decapitation was the fate of the man who ventured to marry any of the father's or grandfather's former wives. Marriage was prohibited during legal mourning time, but this was often disregarded except when mourning for a father or mother.

Five types of women were considered unfit for marriage: "the daughter of a rebellious house; the daughter of a disorderly house; the daughter of a house that has produced criminals for more than one generation; the daughter of a leprous house; and the daughter who has lost her father and elder brother."[4]

CELIBACY

The proper age for marriage, in the later feudal period (122-221 B.C.), was fifteen for the girl and twenty for the young man. Celibacy was severely frowned upon, and in some sections not permitted, for it reflected on the rule of the local officials. Werner tells us how Emperor Cheng Kuan (A.D. 627) effectively disposed of the leftovers in the matrimonial market. He issued a decree that if a young man over twenty and a girl over fifteen were single, the local magistrate should marry them with due ceremony. If they were poor, rich neighbors or relatives were

[3] Henry Yule, *The Book of Ser Marco Polo* (London: Murray, 1875), 2d ed., i. 267.
[4] J. Legge, *The Chinese Classics* (London: Trübner, 1861-1872), I, Prol. p. 105.

obligated to present them with enough money to get them started. Simcox cites an interesting custom showing how severely celibacy was discountenanced. It appears that one method of avoiding the odium of singleness (albeit a method of doubtful satisfaction) was to remove the bodies of those who had died unmarried to fresh tombs where, by a sort of posthumous marriage, they were united to girls who had died before attaining the marriageable age. But even this loophole was stopped up, according to a passage in the *Chow Li* (I. p. 308), and the only remaining honorable way to avoid marriage was to enter the priesthood.[5]

BETROTHAL AND MARRIAGE

Marriage was not a personal matter but the fulfillment of one's duty in preserving the family line. Said the old *Book of Rites:* "Marriage is to make a union between two persons of different families, the object of which is to serve, on the one hand, the ancestors in the temple, on the other hand, the coming generation . . ."[6] It was a great disgrace for any family name to die out, and this was prevented, when necessary, by adoption, even posthumous adoption being possible. A man took great care that his name and those of his children were entered in the *chia pu* (family register) which was kept by the head of the great-family. If a man became a Buddhist priest he gave up both surname and secular name and received in their place a holy name. With his surname he gave up all his rights and duties in the clan. Many Buddhist priests were criminals, due to the desire of the family to protect its good name. If the family council expelled a member for crime it was a stain on the family name, hence such a black sheep was permitted to "resign" and enter the priesthood. Thus "face" was saved all round. As a Buddhist priest was not allowed to marry, the family was permanently relieved of the unworthy offshoot.

[5] E. J. Simcox, *Primitive Civilisations* (London: Sonnenschein, 1897), 2d V., p. 70.
[6] Legge's translation, quoted in Y. K. Leong and L. K. Tao, *Village and Town Life in China* (London: Allen and Unwin, 1924), p. 106.

Children were usually married off according to seniority. While marriage took place quite early, there was no child marriage such as in India. Girls very seldom married before fifteen, but betrothal usually took place a number of years before marriage. The betrothal of unborn children was forbidden, but between families of long established friendship the custom was quite common. The usual age for affiancing children was between seven and fourteen. The selection was made chiefly by the grandparents, if living, or by the parents, aided by a go-between.

The match-maker's profession was honorable, and called for much discretion. He was charged by the parents to look for a girl more remarkable for virtue than for beauty, or in the case of a man, one more renowned for wisdom than for wealth, but he knew that a match of economic advantage would seldom be rejected. The negotiations were frequently carried on in the ancestral temple, which lent a religious sanction to the marriage. Heredity was not neglected. The *san-tai,* an account of one's people back three generations, was first exchanged, and if the families were not well acquainted each would send a confidential agent to verify the *san-tai* of the other.[7] Also the day of birth was important, for each day represented some animal, and if the boy happened to have been born on the day of the fox, and the girl on the day of the goose, they could not marry, for the fox was sure to devour the goose. But if no trouble was encountered on birthdays, the horoscopes were consulted to see if all was propitious. Preliminary presents were then exchanged, the most suitable gift being a wild goose. Wild geese represented a good match for they were always in pairs, and living in the North in summer and the South in winter they had acquired the harmonizing power of the male and female principle.[8]

To be valid the marriage required the consent of the parents on both sides, written into the contract. Also the bride's parents

[7] Leong and Tao, *op. cit.*, p. 5.
[8] Werner, *op. cit.*, p. 24.

must have accepted the regular marriage present from the groom (really from his family) to somewhat repay them for their trouble in raising the girl. Likewise the groom's parents must have agreed to the amount of the dowry offered with the bride. The contract made the whole affair binding as soon as signed, but the exchange of gifts seems to have been the essential element. Once these had been accepted there was no turning back. After betrothal either party could sue for a conclusion of the marriage, and the party refusing was punished with fifty blows, after which the marriage was enforced.[9] If, after the contract was signed but before marriage, it was discovered that the bride's father had practised deceit, he was punished with eighty blows, the contract was voided, and the presents returned. If the groom's father was guilty of such misstatement the punishment was even more severe, and the bride kept her presents. If fraud was discovered *after* marriage it constituted grounds for divorce.

The marriage day was fixed by the bride's parents, and between betrothal and marriage there must elapse for the emperor one year, for great vassals six months, and for the common people one month. If the bride's family delayed unduly after the wedding date agreed upon, the groom had the right to kidnap her with the help of friends. This was occasionally permitted in poor families in order to avoid the expense of an elaborate wedding. But forcible abduction of the bride *before* the set wedding day was a punishable offense.[10] Betrothal was considered almost as binding as marriage, and if a betrothed girl died, mourning could be performed as for a married woman.

The observance of certain formalities in marriage was early made mandatory. One of the Odes speaks of King Wu and his brother, the Duke of Chou, instituting the sanctity of marriage by

[9] P. G. von Möllendorff, "The Family Life of the Chinese," *Journal of the Royal Asiatic Society of Great Britain and Ireland*, North China Branch, n.s., v. 13, 1879.
[10] Justus Doolittle, *Social Life of the Chinese* (London: S. Low, son and Marston, 1868), pp. 104-105.

the observance of special regulations, and unions not conforming to them were declared illegitimate and the offenders punished. Whatever these earliest ceremonies may have been, Chinese marriage in general came to be accompanied by such elaborate rites that usually only the wealthy classes observed all of them. The ceremonies lasted for several days, and families of small resources were sometimes bankrupt when the wedding was over.

For the young man marriage was the "completing of this house" (*ch'eng chia*); for the girl it was a "going out of the door" (*ch'u men*), that is, leaving the household of her parents to enter that of her parents-in-law. During the ceremony the couple knelt together before the ancestral shrine of the groom, the bride thus signifying her allegiance to his household and his family line. All of the other ceremonies being finished the bride and groom ate together of the same food, to show that they were now one body. Passing from the house the husband preceded the wife, establishing at the beginning the right relationship.

COMPARATIVE STATUS OF WIFE, CONCUBINE, AND MISTRESS

In the later feudal period (1122-221 B.C.) when the Emperor married he was to marry nine women at once—one wife and eight concubines or secondary wives. During the Absolute Monarchy (221 B.C.-221 A.D.) the number of wives the Emperor should marry was increased to twelve, one for each of the twelve months of Heaven, but all must be married at once "to avoid lewdness." It appears, however, that this legal number was often exceeded, for in the Han dynasty even a prince was permitted forty concubines. Lesser persons were strictly limited. A great minister could have a wife and two concubines, a scholar one wife and one concubine. As such rules might indicate, there were two kinds of marriage, very similar to the Romans' *confarreatio* and *coemptio*. The legal wife (*chi*) became a member of her husband's clan and worshipped his ancestors. She brought with her a portion from her family, over which (in many cases)

she retained control. In case of widowhood she became the natural administrator of her husband's individual estate, with certain rights in the clan property should his estate be insignificant. She was mistress of the household and held sway over the concubines, or secondary wives. Among the noble and official classes she shared her husband's honors and even wore his uniform, sometimes helping him in the performance of his official duties. No noble, no official, and no person with a literary degree could give his daughter in marriage except with the status of a *chi*, nor could he raise a wife who was the daughter of a slave or a disenfranchised class to the status of *chi*.[11]

The secondary wife (*chieh*), corresponding to the Roman wife by *coemptio*, was of distinctly lower status than the *chi*. She was frankly purchased, and the contract, which had to be in writing, was called "an agreement for selling a person." The price was always stated, though often it was nominal. No marriage ceremony was necessary, the marriage being consummated by the residence of the *chieh* in her husband's household. She was subordinate to the *chi*, but superior to a third type of consort, the *piao*, or mistress, with whom the husband might live temporarily outside the household. The *piao* was sometimes accorded the social courtesy of a *chieh*, who in turn might receive the social courtesy of a *chi*, but in reality there was a great difference between them. The *chieh* worshipped her husband's ancestors, while the *piao* did not; her children were legitimate, but those of the *piao* were illegitimate. The *chi*, with highest rank of all, could not be degraded to the rank of *chieh*, nor could the *chieh* be raised to the rank of the *chi* during the lifetime of the latter. One fly in the *chi's* ointment was that her husband had not personally chosen her, but had chosen his concubines. However, such a plurality of wives, concubines, and mistresses applied only to the wealthy, the majority of the population practising monogamy.

[11] Christopher Gardner, *op. cit.*, pp. 228 ff.

DOUBLE STANDARD

The double standard was fully recognized, and practically never questioned by wives. The principle is clearly set forth in a passage from one of the Odes:

> Ah; Thou young lady
> Seek no licentious pleasure with a gentleman.
> When a gentleman indulges in such a pleasure,
> Something may still be said for him;
> When a lady does so
> Nothing can be said for her.[12]

The wife could not leave the house without the husband's permission. He could beat her if she displeased him, but not severely enough to injure her. In case of adultery the husband could kill both his wife and her paramour, if caught in the very act, and for thus maintaining the purity of the family he was invariably rewarded by the local official and praised by the people.[13] He merely appeared before the magistrate and explained why he had killed the guilty parties. He then received a nominal punishment of twenty blows, and a present of a roll of red cloth, and 20,000 *cash* (equal to 20 Chinese dollars). But the irate husband could have no help in the double slaying, for any one helping him was guilty of murder. Neither could he do any half-way job, for if he killed only one of the guilty pair he himself was guilty of murder![14] The husband's right to destroy the guilty pair had to be exercised at once in order to be valid; otherwise the offenders were brought before the court and bambooed but not put to death. The wife could then be sold into slavery to recover her dowry. In any case the husband was required to divorce her, and in no case could she marry her seducer.

[12] Odes I, V, IV, 3, quoted in H. F. Rudd, *Chinese Social Origins* (Chicago: The University of Chicago Press, 1928), p. 164.
[13] Möllendorff, *op. cit.*, p. 33.
[14] J. H. Gray, *China; A History of the Laws, Manners and Customs of the People* (London: The Macmillan Company, 1878), 2d v., pp. 224-226.

CONDUCT OF WIDOWS

Widows could remarry (after three years of mourning), but it was considered such a disgrace that only the very poor with whom necessity overrode convention dared to disregard the moral law which bound the loyal wife to her husband even in death. If the widow returned to her own parents she lost all her rights in her husband's property, including what she brought with her. She usually took over the management of his estate, or, if his parents were living, remained with them as their daughter. It was a great honor to a family to have a widowed daughter-in-law who steadily refused to remarry, and conversely it brought great dishonor to the family if she married. If a wife became a widow after thirty years of age, and remained one for thirty years, her virtue was so great that she was eligible for an imperial reward in the form of an arched gateway, erected where she lived. After receiving such a reward she could not change her mind and marry! Such arches were numerous in some parts of China.

DIVORCE

It is not known when divorce was first legalized in China, but it was in existence when the Code was promulgated in 253 B.C. Confucius is said to have divorced his legal wife, his son and grandson following his example, though some writers deny this. There were at least ten grounds on which a man could divorce his wife: (1) fraud in the marriage contract; (2) adultery or dissolute conduct; (3) disobedience or unfilial conduct towards the husband's parents; (4) barrenness; (5) jealousy; (6) incurable disease [leprosy?]; (7) talkativeness; (8) theft; (9) leaving the house against the will of the husband; (10) desertion. Legge's translation of the Chinese classics shows that most of these reasons for divorce might be overruled in court by any one of the following considerations: (1) if the woman had been taken from a home but now had no home to return to; (2) if she

had passed with her husband through the three years of mourning for her parents; (3) if the husband had become rich after being poor. Furthermore, too frequent divorce was frowned upon. Kuan Tzu wrote that a scholar who had divorced three wives should be expelled from the district.

There is evidence that in the very early times (later feudal period, 1122-221 B.C.) divorce for trivial offenses was common, and might even be commendable. Cheng Tzu, explaining the *Chou Rites,* declared that the ancients were so honest and chivalrous that a man of honor would not divorce his wife for serious cause lest it ruin her life, but only for slight cause, in accordance with the old proverb: "In divorcing a wife one should make her marriageable." Divorced women usually were permitted to go back to their parents, but the above proverb would indicate that remarriage was common in that early day. It appears that divorced concubines at first were not allowed to remarry, for in the next period (Absolute Monarchy, 221 B.C.-221 A.D.) a decree was issued giving them the right of remarriage.

But the wife also had some rights of divorce, though they were limited. She could divorce her husband: (1) if he became a leper; (2) if he deserted her, remaining away three years, and if meanwhile none of his relatives had offered her any support.[15] To these two commonly accepted grounds, Möllendorff adds three other causes for which the wife could *sue* for divorce, but with no assurance that it would be granted: (a) if she had been deceived by false statements in the marriage contract; (b) if her husband had beaten her cruelly; (c) if her husband was willing to divorce her at her own request. In support of the last named cause, Werner tells of a woman who wanted to divorce her husband because he had become very poor. He consented, and wrote her an ode which she took to the magistrate. The divorce was granted—after she had received twenty strokes of the bamboo.

[15] Gray, *op. cit.*

SOME SOCIAL RESULTS OF TRAINING IN VOCATIONAL AGRICULTURE

M. E. JOHN
AND
RAY. E. WAKELEY
Iowa State College, Ames, Iowa

How does the training in vocational agriculture influence the social adjustment of high-school graduates who remain in their home community? Answers of 546 graduates of Iowa high schools, 214 of whom are now residing in the community in which they attended high school, indicate how training in vocational agriculture has influenced their activities and their attitudes in certain very definite ways. Information secured concerning continued residence in the home community, the number of occupational changes made since graduation, participation in the activities of rural organizations, and differences in opinion towards farming and coöperative marketing gives some indication of social adjustment. In addition, the information relates closely to those social factors most likely to be influenced by training in vocational agriculture and to objectives 8 and 12 of the training objectives set up in 1931 by a committee of the Federal Board for Vocational Education.[1]

Data were secured from the students and graduates of twelve Iowa high schools, seven of which had graduates in vocational agriculture during the period of this study, 1922 to 1927. Of the other five schools included, four have added courses in vocational agriculture since 1927 and these five schools, otherwise comparable to the others included, constitute in a sense a check group, by the use of which a comparable number of nonvocational graduates is secured. The twelve schools are representative of all the

[1] American Vocational Association, National Committee, *Training Objectives in Vocational Education*. United States Board for Vocational Educational, Bulletin 153, May 1931, pp. 1-2.

major farming areas in Iowa and of the kinds of rural communities in which vocational agriculture is taught (Table I). Data collected by questionnaire and by personal visit and checked by local leaders were secured in 1932 from five to ten years after graduation. Since it was impossible to study the changes in the opinions of the graduates while they were in school, the opinions of the present freshmen were compared with those of the present seniors.

TABLE I

POPULATION OF CENTER, HIGH-SCHOOL ENROLLMENT, AND STATUS OF VOCATIONAL AGRICULTURE IN TWELVE IOWA HIGH SCHOOLS

Community	*Population of Center* 1930	*High-School Enrollment* 1931-1932	*Vocational Courses First Offered*
Orange Township[a]	—[b]	75	1917
Kelley[a]	179	52	1920
Castana[a]	334	85	1921
Hudson[a]	470	70	1920
Jesup[c]	736	120	1923
Denison[c]	3,905	323	1917
Newton[c]	11,560	786	1917
Story City[d]	1,434	150	1928
Harlan[d]	3,145	324	1930
Greeley[d]	343	70	1929
Dunlap[d]	1,522	152	1931
Marshalltown[d]	17,373	866	—[e]

[a] Vocational agriculture required of all male students
[b] Open country center, unincorporated
[c] Vocational agriculture elective
[d] Vocational agriculture not offered during the time of this study
[e] No vocational agriculture offered

Of 546 graduates, 214 or 39.2 per cent are now in the community where they attended high school (Table 2). Though a slightly higher percentage of graduates trained in vocational agriculture were found in the home community, differences in the ability of communities to hold their graduates are more

closely related to the population of the center than to the status of vocational agriculture in the school. Centers under 500 population held 41.2 per cent of their graduates, cities held 50.8 per cent

TABLE 2

GRADUATES OF TWELVE IOWA HIGH SCHOOLS, 1922 TO 1927, LIVING IN THE HOME COMMUNITY IN 1932

School	Total Graduates Investigated	Graduates in Home Community Number	Per Cent
Total	546	214	39.2
Denison	94	29	30.9
Jesup	48	18	37.5
Newton[a]	64	36	56.3
Castana	18	6	33.3
Hudson	44	18	40.9
Kelley	15	10	66.7
Orange Township	33	10	30.3
Dunlap	38	12	31.6
Greeley	21	10	47.6
Harlan	40	10	25.0
Marshalltown[a]	56	25	44.6
Story City	75	30	40.0

[a] The smaller number of graduates selected at random from these largest schools prevents them from unduly influencing the totals.

of their graduates, while the larger villages and towns experienced greatest difficulty holding but 33.6 per cent of their graduates.

Minute comparison of the scholastic records of the graduates was not practical because of wide variations in grading systems. The data secured indicates in general that there is no tendency for those securing higher than average grades to leave the home community. However, in the schools where vocational agriculture was elective, the majority of the students securing above average grades did not elect courses in vocational agriculture.

RELATION OF TRAINING TO CHOICE OF OCCUPATION

Occupational data were secured from 506 graduates, of whom 198 had taken courses in vocational agriculture. These data indicate a relation between training in vocational agriculture and the decision of high-school graduates to follow farming as an occupation (Table 3). Nearly one half of the graduates who took vocational agriculture are now farming. Unskilled labor claims the next highest number, with skilled labor and the professional and technical occupations which require college training following in the order named. Students not taking vocational agriculture are quite evenly divided between skilled, unskilled, and professional and technical occupations. In the schools where vocational agriculture is elective, only 6 per cent of the students not electing vocational agriculture are now farming while the largest number, 31.9 per cent, are now in professional and technical occupations.

Of 73 graduates in vocational agriculture whose fathers were

TABLE 3

OCCUPATIONS OF GRADUATES IN VOCATIONAL AGRICULTURE COMPARED WITH OTHER GRADUATES

	Status of Vocational Agriculture in the Schools							
	Where Vocational Agriculture Is Elective				*Where All Take Vocational Agriculture*		*Where Vocational Agriculture Is Not Offered*	
	Taking Voc. Agr.		*Other Students*					
Occupation of Graduates	*Number*	*Per Cent*	*Number*	*Per Cent*	*Number*	*Per Cent*	*Number*	*Per Cent*
Total . . .	90	99.8	116	99.8	108	99.9	192	100.0
Farmers . .	40	44.4	7	6.0	51	47.2	42	21.9
Skilled laborers	13	14.4	28	24.1	15	13.8	33	18.2
Unskilled laborers . .	16	17.8	25	21.5	24	22.2	35	17.1
Professional and technical .	10	11.0	37	31.9	14	13.0	29	15.2
Unemployed .	4	4.4	5	4.3	1	.9	11	5.7
Deceased . .	1	1.1	4	3.4	2	1.9	4	2.1
Unknown . .	6	6.7	10	8.6	1	.9	38	19.8

farming while they were in high school, 73 per cent are now farming (Table 4). When this is compared with the 63 per cent of the boys now farming who did not select vocational courses even though their fathers were farming, it is apparent that the occupation of the father also appreciably influences the choice of occupation of the son. These data, however, also indicate that vocational training influences the choice of occupation of the graduates, and further emphasize the tendency of graduates in vocational agriculture to work in unskilled occupations while the other graduates work in skilled professional and technical occupations to a much greater extent. Unemployment is more widespread among the graduates who did not take two or more courses in vocational agriculture.

Graduates in vocational agriculture have held fewer jobs than the other graduates (Table 5). This is especially marked in the graduates of those schools where vocational agriculture is elective and holds true even among the graduates whose fathers were farming while the sons were in high school.

TABLE 4

OCCUPATIONS OF GRADUATES COMPARED WITH OCCUPATIONS OF FATHERS

	Course Taken By Sons			
	Vocational Agriculture		*Other*	
Occupations	*Fathers*	*Sons*	*Fathers*	*Sons*
Farming	73	53	56	35
Skilled labor	5	8	24	29
Unskilled labor	1	17	6	17
Professional and technical	0	0	7	5
Unemployed	0	2	0	11
Deceased	1	0	1	0
Unknown	0	0	3	0

More satisfactory occupational adjustment is also indicated for the graduates who took vocational agriculture by every comparison indicated in Table 5; at least one third more of them

TABLE 5

THE NUMBER OF JOBS SINCE GRADUATION HELD BY VOCATIONAL AGRICULTURE AND OTHER GRADUATES

	Vocational Agriculture Graduates		*Other Graduates*	
Class	*Number*	*Jobs Held, Average*	*Number*	*Jobs Held, Average*
Total	154	2.56	155	2.74
Vocational agriculture elective .	44	2.61	27	3.03
Vocational agriculture required .	37	2.70	—	—
Vocational agriculture not offered	—	—	71	2.58
Sons of farmers	73	2.45	57	2.79

are, at the time of this investigation, in the occupation they decided upon while seniors in high school; a larger percentage had made their occupational preference by the time they were seniors in high school; and a larger percentage do not now wish to change from the choice of occupation they made while in high school.

RELATION OF TRAINING TO PARTICIPATION IN ORGANIZATIONS

Information concerning participation in local organizations was secured from 168 of the graduates who remained in their home community. This information indicates that the graduates in vocational agriculture average lower than other graduates in the number of organizations to which they belong and in the number of offices held in these organizations (Table 6). No appreciable difference in regularity of attendance was indicated by the data. In order to eliminate the influence of different communities, information is presented for the graduates of schools where vocational agriculture is elective. In these schools the graduates in vocational agriculture belong to more organizations and attend more regularly than do the other graduates. However, the graduates of other courses show decisive superiority in the number of offices held per graduate.

Information showing the participation of parents of graduates in local organizations indicates that the parents of the graduates in vocational agriculture belong to more organizations, attend them more regularly, and hold a larger number of offices than do the parents of other graduates.

The inference may be drawn from this data that training in vocational agriculture does not encourage participation in local organizations. However, the limited number of cases and the absence of information on a number of closely related factors

TABLE 6

PARTICIPATION OF GRADUATES AND THEIR PARENTS IN LOCAL ORGANIZATIONS, 1931

	All Graduates		*Graduates of Elective Schools*	
Activity	*Vocational Agriculture*	*Other*	*Vocational Agriculture*	*Other*
Number of graduates	75	93	41	28
Memberships per 10 graduates	7.9	9.0	6.8	5.7
Per cent of regular attendance	25	26	31	22
Offices held per 10 graduates	.9	1.6	.5	1.4
PARENTS OF GRADUATES				
Memberships	35	24	38	21
Attendance	48	35	54	41
Offices held	7.7	5.4	10.0	6.1

indicates that judgment should be withheld until more complete information is available.

RELATION OF TRAINING TO CHANGES IN STUDENT OPINION

While teachers of vocational agriculture make little studied attempt to change the opinions of their students, it has been generally assumed that changes in opinion accompany the mastery of agricultural subject matter, and that change in opinion may constitute a valid result of teaching. The measurement of opinion has the advantages that it registers at the time the course is

being taken and also that a change in opinion may be registered which may be insufficient to materially change activities at the time. It was assumed that the opinion towards farming as an occupation and towards coöperative marketing organization would be representative of the opinions which training in vocational agriculture might reasonably be expected to change. A rating scale was constructed for each, similar to those advocated by Thurstone.[2] Twenty-four statements were used in the scale for measuring opinion towards farming and 13 statements were included in the scale for measuring opinion towards coöperative marketing. Rank differences were established by the ranking given these questions by 200 college students. The resulting value determined for each statement was determined to the nearest tenth and multiplied by ten to avoid decimals in the scores obtained.

Since the change in attitude of the graduates as a result of their teaching cannot now be determined, freshmen and seniors were rated. Ratings in the same schools of the two classes were compared with each other and also with the present ratings of opinion towards farming secured from the graduates. Graduates were not rated on opinion towards coöperative marketing.

STRENGTH OF OPINION TOWARDS FARMING

The scores obtained from the various groups indicate that the seniors taking vocational agriculture have an appreciably higher opinion towards farming as an occupation than the freshmen enrolled in vocational agriculture (Table 7). In fact, the seniors have as high opinion towards farming as the graduates who took vocational agriculture.

Freshmen not enrolled in vocational agriculture have a somewhat lower opinion towards farming as a vocation but this opinion is considerably higher than the opinion of seniors not taking

[2] L. L. Thurstone, "The Measurement of Opinion," *Journal of Abnormal and Social Psychology*, 22:1928, pp. 415-430.

vocational agriculture. Graduates of other courses have more favorable opinion towards farming than do either the freshmen or the seniors in those courses. Freshmen, seniors, and graduates in vocational agriculture average over 90 points higher in their opinion towards farming than do freshmen, seniors, and graduates in other courses. Freshmen show least difference, seniors

TABLE 7

STRENGTH OF OPINION TOWARDS THE OCCUPATION OF FARMING

	Vocational Agriculture		*Other Courses*	
Class	*Number of Cases*	*Average Score*	*Number of Cases*	*Average Score*
Total				
Freshmen	37	844	69	820
Seniors	32	921	84	761
Graduates	76	919	92	835
Sons of Farmers				
Freshmen	36	792	8	722
Seniors	30	932	16	750
Graduates	70	920	50	926
Graduates farming now . .	52	943	37	921

show most, while the graduates occupy a middle position, though the graduates as a whole show more favorable opinions towards farming than the students.

Sons of farmers, enrolled in vocational agriculture, have a less favorable opinion towards farming than do all freshmen in vocational agriculture. Seniors and graduates who are sons of farmers do not vary greatly from all seniors and graduates in vocational agriculture. Graduates who are sons of farmers, who took vocational agriculture, and who are farming now, show the highest opinion towards farming of any group. Freshmen who are sons of farmers and who are now not enrolled in vocational agriculture have the least favorable opinion towards farming as an occupation. This opinion is improved somewhat for the seniors. Graduates of other courses who are sons of farmers and who are

now farming show about the same opinion towards farming as those who took vocational agriculture.

Consideration of the ratings indicates that the teaching of vocational agriculture does materially affect the student's opinion towards farming. It is important also to notice the leveling out of opinion towards farming among the graduates who remain in the home community.

STRENGTH OF OPINION TOWARDS COÖPERATIVE MARKETING

In general, this test shows results similar to those obtained in testing opinion towards farming. However, in some ways the differences are smaller and show greater regularity. Freshmen enrolled in vocational agriculture and those enrolled in other courses exhibit practically the same score towards coöperative marketing. Seniors in vocational agriculture and in other courses show appreciably higher scores than the freshmen, but the seniors in vocational agriculture changed more than other seniors though the difference is not as striking as the difference in opinion towards farming. When only the sons of farmers are considered, the other freshmen not only score lower than the freshmen in vocational agriculture, but also the seniors in vocational agriculture score higher towards coöperative marketing than do the other seniors.

TABLE 8

THE STRENGTH OF OPINION TOWARDS COÖPERATIVE MARKETING

	Vocational Agriculture		*Other Courses*	
Class	*Number of Cases*	*Average Score*	*Number of Cases*	*Average Score*
Total				
Freshmen	39	648	69	650
Seniors	33	780	83	768
Sons of Farmers				
Freshmen	36	639	8	611
Seniors	31	771	16	676

SUMMARY AND CONCLUSIONS

Though two or more courses in vocational agriculture cannot be expected to revolutionize the opinion or the activities of high-school students either before or after graduation, data indicate that such training is associated with less movement from the home community, more satisfactory occupational adjustment, less active participation in local organizations, and stronger opinion towards farming as an occupation and towards coöperative marketing. Comparisons, made in schools where vocational agriculture is elective and where both vocational and other students are sons of farmers, tend to eliminate important sources of difference and indicate that some of the differences are a result of training in vocational agriculture. While no attempt was made to measure definitely the relation of community standards to the changes noted, the changes seem to continue after graduation if they are in line with such standards.

Results of this investigation indicate that certain sociological effects of instruction are present and can be measured. Teachers should be encouraged to assist students towards more satisfactory social adjustments, and research workers should be encouraged to undertake long-time experimental studies, not only of the results of teaching but of other social forces as well.

EDUCATION AND PROGRESS

HAROLD SAXE TUTTLE

College of the City of New York

The attention of educators in recent years has been directed chiefly to scientific method. The result of this is a neglect of the larger aspects of education in relation to the progress of civilization. Now and then a voice is heard calling educational forces to take their eyes from the machinery long enough to locate the distant goal once more. On the whole little attention has been paid to these warnings. Details of curriculum and method, of organization and administration, have quite largely dominated educational thinking during the past two decades. Until some general criterion can be accepted for testing each particular step in education, there is little hope of utilizing the public-school system as a means of serving or improving our civilization.

The determination of aim must rest in part upon an understanding of the nature of progress. It is at this point that the first attack must be made upon the problem of education's contribution to civilization. In view of the divergent attitudes towards the nature and meaning of progress, there is need for a careful analysis of the various basic assumptions regarding the nature and facts of progress. Five possible theories appear, each of which has its emphatic supporters.

The first of these theories is that there is no progress at all but rather retrogression. According to Rousseau, as civilization advances mankind becomes worse off. Changes have represented retrogression, not progress. Bernard Shaw's *Three Plays for Puritans* supports this same belief that we are going backward. One need not go beyond Carpenter's title, *The Cause and Cure of Civilization*, to recognize his similar position. According to

[1] Some of the statements in this article repeat the substance of statements in the Author's book, *A Social Basis of Education* (New York: The Crowell Publishing Company, 1934).

this theory the increasing complications of life constitute increasing hindrances to the betterment of life. The more intricate the machinery of government and business and communication and social life, the further removed we are from the ideal goal. "Back to nature," cried Rousseau.

If this theory be true, education can have little to do with the improvement of human life. Its chief service would necessarily be to train children in attitudes of protest against our complicated and increasingly intricate civilization. Perhaps something might be done to cultivate mental attitudes intended to meet the stress of a nerve-wracking social order. No large program of social engineering, however, is conceivable as a task of the school system if we are retrogressing rather than moving forward.

In spite of the grounds for pessimism in modern civilization, the evidence is overwhelming against such a conclusion as that implied in this first theory. One need but to compare any previous century with the present to see that for every disadvantage we are experiencing, there are scores of advantages. The achievements in the field of scientifically controlled health have forever removed from civilized people the haunting dread of a sweeping pestilence such as often scourged large areas in earlier periods. Our economic status may not be as secure as some optimists declared as recently as 1929, but the terrible poverty in many parts of the world even now, and in the most highly civilized parts of the world only a few centuries ago, simply does not exist in highly civilized society today. We are making gains in the field of economic security. The horrors of war were increased by the devices which modern science has produced, but the tortures practised in primitive warfare have not been tolerated by any civilized nation in recent conflicts. Still more significant is the fact that the conscience of civilized man in regard to war has been amazingly sensitized within the present generation.

Positive evidences of international friendship and of a growing ideal of human brotherhood have been greatly multiplied within the past half century. While individualism is still conspicuous, social sympathy is finding effective expression in meeting the problems created by selfishness to a degree hitherto unknown. It is difficult to read history with an eye to specific detail without arriving at a clear conviction that the gains in civilization have far outweighed the losses in the last two or three milleniums. If one is careful to go back into the study of primitive man and survey the entire human episode, he can hardly maintain that prehistoric life or the earliest forms of barbarism were superior to the civilization of today with all its imperfections.

A second theory is that we are neither progressing nor retrogressing—rather we are going nowhere. In an unpublished manuscript of Sumner's quoted by Keller in his *Societal Evolution,* that famous sociologist compared the progress of civilization to the drifting of the clouds. He says in substance that while the clouds move according to forces acting under definite laws, they move towards no goal. Whether they drift in one direction or another matters not; actually they never arrive. So with civilization. It changes, and doubtless changes under forces conforming to some discoverable laws. But there is no significance in its changes. It has no goal. It drifts along. Its direction is doubtless determined by social laws, but it can never arrive, for there is no objective that has any meaning. In greater or less degree this theory finds considerable favor with many social thinkers. Progress is impossible to define. We have no way of knowing what is better and what is worse. We could, therefore, not recognize progress if it were taking place.

Such a theory may not seem quite so pessimistic as the former but it can make no greater claims for optimism. If there is no goal and therefore no possibility of progress, then again educa-

tion has little service to render. It may enable its products to adjust themselves a little more aptly to the momentary conditions of their environment, but it cannot contribute towards any permanent improvement of the human race. At best it is a sort of palliative against the pains and misfortunes of the moment.

The arguments against this position are too extensive to develop at this point. They are implied in some degree in the direction of the fifth theory to be discussed later. An overview of the long history of human life upon the earth, in this instance as in the previous instance, forces the conclusion that changes represent genuine improvement and not blind meaningless drifting.

A third theory is that progress is taking place according to definite laws, but that it is not continuous. Civilization rather moves in cycles—sometimes forward—sometimes backward. The analogy would be truer to the words "Sometimes upward—sometimes downward." This theory has been most recently and elaborately developed by Oswald Spengler in his *Decline of the West.* Great movements take place in human civilization over long periods of time. Forces too stupendous to be understood or modified by human thought and purpose carry civilization upward for a time and then as inevitably downward through a period of decline. History reveals cycle after cycle in the great civilizations of the world. No two cycles are exactly alike, even as no two kinds of flowers are alike. The rose differs from the lily and the crocus from the buttercup. But all flowers share in common a cycle of budding, blooming, fading, and dying. Likewise, civilizations, although they may differ in many respects and appear in many forms, are all doomed to the same general law involving an advance to a high crest of achievement and an inescapable decline in which their earlier glory fades. If Spengler and his spiritual kin are correct then education has little significance for civilization as a process.

Its blunders cannot prevent the period of development and progress. Its genius cannot prevent the period of decline. Its influence is too feeble to change the gigantic movements of time. Again, its only service can be to equip the minds of its products with such moods and attitudes as may somewhat offset the sting of failure during periods of decline. It has little to offer because it is little needed during periods of progress.

Not much evidence can be found in history to refute directly the theory of cycles. History has revealed many instances of rise and decline. The answer must rather be found in an increasingly penetrating analysis of the forces which have been operating in history, and of the forces which are now known to operate in human society. The sociologist must discover whether the movements of history have followed laws which could be observed and formulated and whether the forces working in accordance with those laws are subject to human control. If the scientific approach to the study of society reveals such forces and such laws and indicates a possibility of human control of those forces under a program of highly organized education and discussion, then it might be possible to modify the experiences of the past and to control the changes of society sufficiently to alter the periods of decline, if not altogether to prevent them.

The fourth theory is that progress is taking place on a stupendous scale. There may be occasional brief periods of retrogression, but they are incidental as compared to the momentous forward movement of civilization as a whole. "The waves may be receding but the tide is coming in." Herbert Spencer's theory is of this sort. Evolution in the biological world offered the clue to evolution in social experience. Spencer saw in changes in civilization a colossal process of evolution carrying society inevitably onward and forward and upward. As seen by Spengler, and also by Spencer, the forces determining this evolution of

society are so stupendous that no human effort or interference can avail to retard or hasten the process. Evolution represents a law of such a nature that as complications increase higher differentiations take place and progress is assured. This views first the cycles of decline as trivial incidents in the larger picture of progress.

If this view is sound there is little to challenge education. Progress is irresistible. There is, therefore, no need of education to secure it. The only service of the schools is the better adjustment of each individual to the great movements in which he finds himself swept forward. The value of education at best is but individual and temporary.

This view has been challenged in recent years by arguments that are difficult to refute. This challenge involves two lines of reasoning. The first questions the soundness of the analogy between social evolution and biological evolution. The second is based on an increasing understanding of the forces operating in social change.

Superficially, social change resembles the changes in the biological world at so many points that the use of the same word seems highly appropriate. Most of the recent textbooks dealing with sociology, especially those dealing with its educational aspects, assume without argument that social evolution is a fact and that it is supported by its analogy to biological evolution. One has but to note the book titles and chapter titles in the field of applied sociology during the last generation to see how general has been this acceptance. The analogy has been accepted, however, chiefly because of the superficial similarities. The few efforts to press the analogy into specific method have not only been unconvincing but have tended to reveal the basic fallacy involved. Biological evolution is based upon variation among the individuals in each generation and the survival of those best adapted to their environment. The changes brought about in

the evolution of animal forms have not been due to changes in any individual during its own lifetime. If such changes have occurred, they have had no perceptible influence upon the next generation. The change in any generation has been a change of tendency towards survival, not a modification of individuals in the species. If dark fish found their way into a shallow lake with a floor of light-colored stones, the change after a few generations towards a lighter color was not due to the tendency of any individual fish to become lighter colored during its lifetime but to the fact that the lighter colored individuals in each generation survived through their protective coloring against a light-colored background, while the dark members of that generation were more quickly discovered by their enemies and devoured. Each generation of fishes in that species tended towards a greater proportion of light-colored individuals because only light-colored individuals survived to leave offspring. The variation occurs from generation to generation and not within the individual.

It is important to note this fact of change from generation to generation rather than within the individual when attempting to apply the analogy to social change. Is social evolution a process of changes analogous to the case just cited? Are there individuals in each generation of institutions or traditions or qualities or whatever other unit of social characteristics that may be selected? Does one generation disappear leaving a variety of offspring some of which survive because of their adaptation, others being destroyed because they are ill adapted to their environment? Is there indeed any such succession of individuals and offspring in institutions and qualities and traditions? Social change is rather a gradual adjustment of a particular institution to its changing environment, its survival being made possible by changes within itself. The same may be said of traditions and qualities and of practically any other unit of social organization.

The changes that take place in society are modifications of each such unit to fit the changing needs. Whatever survives is enabled to do so because it is modified to suit those needs.

The analogy is far closer to the education of an individual than to the evolution of a species. Just as the individual is adaptable to his environment, and shifts in one aspect to meet one condition, in another to meet another, and thus becomes quite a different person after a few years of adjustment to society, so society itself is being modified by its adjustment to the forces that play upon it —a little here, a little there—successive forces each in a slight degree amounting to profound changes over long periods of time.

If one were to be precise one must use the term societal education rather than societal evolution. In other words, even if there are tendencies in the animal world which lead to changes of a profound nature in a given species without consciousness or purpose on the part of that species, there is no ground for assuming that there are any such innate tendencies in society which bring about profound changes without social consciousness or purpose. The animal world may evolve without aim or effort on its own part. Society changes only because of forces which its own members control. This does not imply that individuals will be aware of their influence upon social change, nor that any individual is aware of the outcome of a particular program of social behavior. Military preparation is supported by its advocates on the ground that it will tend to secure the peace of the world. The pacifist insists that military preparation works in just the opposite way. But the policy has some effect upon the future even though one or the other or both may be mistaken in advance as to what that effect is to be.

The second line of argument which has been leveled against the theory of inevitable social evolution is based on an analysis of social forces. One can hardly read the literature in the field of sociology without recognizing the fact that many of the forces

which determine social change are becoming more clearly understood. If the evidences of social scientists point towards a final analysis of social forces into their component parts, the conclusion is inescapable that social change is the product of definite forces. Once these forces become clearly understood they may be utilized by social engineers for the reconstruction of society according to a purposeful pattern. This conclusion opens the way for the final theory and already indicates the grounds upon which it is based.

The fifth and final theory, then, is that progress is possible and to whatever degree it occurs it is the outcome of the conduct of the members of society. In so far as society becomes self-conscious and coöperates to carry out a program of social engineering, it is possible for society to be self-directing. Whether or not there is an absolute aim towards which society ought to move, at least definite aims may be accepted and social progress directed towards them. If there is a best direction of social change, patient analysis of human nature and of history will ultimately discover that best direction; and with the accumulated experience of persistent efforts at social engineering success in attaining that ideal goal should be increasingly realized.

The task of education in the light of such a theory is clear and challenging. If the progress of civilization depends upon a program of social engineering, then the task of education is nothing short of such a program of social engineering. No palliative, no mere program of incidental and individual adjustment to inevitable disaster! Rather the future of civilization is in the hands of educators! Were it possible to convince every educator that the progress of civilization is wholly dependent upon human behavior and that human behavior can be largely controlled by an educational process, a social renaissance such as the world has never seen could be achieved in a single generation.

But a second article of faith will be necessary on the part of all

educators before the first can be brought to realization. The discovery that information does not modify behavior stands between the educator and the ideal social order. Such changes have come about as a result of human behavior, but human behavior is not the product primarily of mere intelligence. It is the product of desires and interests utilizing a greater or less degree of intelligence. The tragedies of the past have been partly due to ignorance, but not wholly. The tragedies of the present are probably due less to ignorance than to selfish individualism. The destinies of thousands may be determined by the choice of one. The selfish ambition of Alexander the Great changed the total complexion of eastern culture for all time. Napoleon's ambition brought suffering upon countless thousands not only in his own but in later generations. The control of an increasingly efficient industrial system by individualists concerned more with profits than with the serving of human needs is already changing the course of civilization—a change not altogether favoring the highest happiness of the race. Such progress must wait for the training of generations whose members are more concerned for the total social well-being than for the satisfaction of their individual impulses and desires. Not until the schools discover how to train the interests and attitudes of a generation can unimpeded progress be brought about. The achievement of the finest life for society and all its members awaits a program of social engineering which includes both the cultivation of thoroughly social attitudes and the building up of intelligence as to how to make those attitudes successful in the social order. There is in sight at the present time no institution which appears to be in a position of advantage to undertake this stupendous task of social engineering as effectively as the public-school system. Can the science of education perfect a method? Can the social prophet inspire educators with a conviction of this possibility?

SOVIET EDUCATION AND CHILDREN'S LITERATURE

SIMON DONIGER

Jewish Child Guidance Bureau, Newark, New Jersey

Soviet planning has been stressed in America mainly from its industrial and technological aspect. The *Dnieprostroi* and *Magnitogorsk* have become for us the symbols of the achievement of New Russia. Yet, for over ten years, an experiment has been going on in Russia, an experiment highly organized and planned, which if successful will have infinitely more far-reaching consequences than anything else that Russia has so far attempted. I am referring to the program of Soviet education, a program with no less a goal for its object than that of revolutionizing what we have heretofore called "human nature." And yet with the exception of such splendid studies of the subject as Pinkevitch's *Education in New Russia,* Thomas Woody's *New Minds: New Men?* (studies essentially technical, and meant primarily for students of education rather than for the lay reader), Ognyov's *Diary of a Communist School Boy,* and the occasional references of men like George F. Counts and John Dewey, we have remained ignorant of this vast and momentous experiment.

The Soviet leaders have long been aware that unless they succeed in modifying or "revolutionizing" human nature, *bourgeois* human nature, all of their achievement in the field of industry and technology will avail them nothing, and the newly acquired means of production, acquired at so terrific a cost of human misery and privation, will become an added tool in the hands of capitalistically minded exploiters. Human nature as a result of 2,000 years of Christian, feudal, and *bourgeois* economy and education has become individualistic, sentimental, nationalistic, romantic. Added to all this, the Russian suffers from a disease peculiarly his own, a disease so beautifully sym-

bolized by the Russian *Nitchevo* and by the Oblomovism of Gontcharov's famous novel: the disease of passive acceptance. Russia has set out on the gigantic experiment of substituting for these qualities of *bourgeois* mind a new ideology—socialism-collectivism as against individualism; realism as against a sickly romanticism; class consciousness (followed by a classless society); and internationalism as against the present nationalism; an unflinching materialism as against a tolerant and vacillating idealism; militant activism as against a slothful passivism. This tremendous project is to be realized through highly organized and directed education, education in which the academic schoolroom plays only a relatively insignificant part.

Social philosophers have always speculated on the possibility of consciously directing the course of societal evolution through the control of educational agencies. Plato's political philosophy is essentially based on this concept. Erasmus, one of our wisest educational philosophers, agrees fully with Plato: "Give me for a few years the direction of education and I agree to transform the world." Both, however, were aware of the difficulty of bringing about any basic change in the psychology of the adult population and Plato openly admits in *The Republic* the impossibility of "persuading the men with whom we begin our new state, but I think that their sons and the next generation and the subsequent generations might be taught to believe it."

The Soviet leaders, too, were cognizant of this difficulty and, while not altogether overlooking the adult population, have bent their efforts primarily in the direction of the children. And so we have Lenin say, in one of his first speeches, immediately after the October revolution, "Give me five years to teach the children and the seeds sown shall not be uprooted"; and again in addressing the children of Russia: "You must be the first constructors of communist society; among the millions of builders must be included every young man and young girl. Without

drawing the whole mass of worker's and peasant's youth into the building of communism, you will be unable to erect a communist society."

For the purpose of building this new social order through the metamorphosis of the individual psychology of its children, the Soviet leaders have reorganized the entire educational system from the top to bottom, harnessing to it every vehicle of extramural education: the newspaper, the movie, radio, literature, art, posters, clubs, reading rooms, factory schools, children's organizations, such as the Pioneers, Octobrists, and Komsomols, to mention only a few. Under this all-powerful and all-inclusive system a ruthless, never-ceasing process of indoctrination is taking place which promises to bear exactly the fruit the Soviet leaders expected. How fanatical the Russian educator is about this purpose and his program may be judged from the fact that at the All-Russian Conference on Education in 1924, a conference consisting of some of the most prominent leaders of Russia, hypnotic suggestion was seriously discussed as a method of attack in education. (The fact that it was not accepted is not so important. We have no less an authority than Pinkevitch, president of the First University of Moscow, vouch for this fact.)

To the criticism of our Western liberals that education must be free, the Russian educator replies that education never *was* free; that the cry "keep politics out of school" is hypocrisy; that schools never were or will be free as long as the state exists; and the resultant psychology of the child will invariably reflect the psychology of the class that own the means of production. To quote Pinkevitch again: "Our aim is to build a true culture—no nation has done so yet. True culture must be founded on the good of all. School, educational philosophy, and political life must all be united. No true educational philosophy can be founded in a predatory society. The uniformity and order of a disciplined collective society is better than the chaos and waste

that are inevitable in a 'free' and individualistic one. To lay the educational bricks in building this type of culture is the high duty of current education."

It is impossible within the scope of this article to go into any details of the techniques employed by the Soviet educators in bringing about their goal. New textbooks written exclusively from the Marxian point of view; a specially adapted Dalton plan, which recently received some publicity in our American newspapers; manual training emphasizing the dignity of labor —these are only a few. One of the most important instruments of educational planning in Soviet Russia, however, is its children's literature, a literature which in many respects is entirely new. There was, of course, a children's literature under the old régime. It consisted, however, mainly of the native *Skazki*; the *Baba Yaga* (or witch) series; the *Zsharptitza* (or fire bird) variety, set so beautifully to music by Stravinsky; and the "beautiful princess" type, mostly an imitation of the European. One can easily see how much at variance this literature is with the communist ideology—the superstitiousness of the first, the fantasy of the second, and the idealization of aristocracy of the third. Here and there an allegorical poem dealing more or less critically with the contemporary Russian scene found its way into our prerevolutionary children's anthologies, such as the following poem of Nekrasov:

THE UNMOWN PATCH

Late Autumn; the rooks have flown
The fields are empty and the woods wind blown
All but a thin patch of overripe rye
Lonely and melancholy like a far away sigh
As if the stalks plaintively moan:
"Lonely and sad is the late autumn wind
Bitter to spill our ripe grains alone;
Why are we punished? how have we sinned?

Night after night we are tattered and torn;
Bent low to the ground evening and morn
By rabbit, and bird and late Autumn blast
Where is our reaper? Won't he come at last?"

And the wind brings an answer: "weary and sore
Your reaper has no strength left for you any more."
(*Translation by Simon Doniger*)

Such poems were rare exceptions however; nor was there ever any attempt on the part of our teachers to explain to us the meaning of the allegory. It remained a rather nostalgic pastorale and it was not until long after childhood that the significance of the thing finally dawned upon us.

The new children's literature in Russia is powerfully direct, idiomatic, and not subtle. Its purpose is frank and obvious. It glorifies the machine, finding in it more than an adequate substitute for the old fairy tales; it pokes fun at the sentimental romanticism of old Russia, its religiousness and superstition; it emphasizes the solidarity and dignity of labor and the needs and values of collective and coöperative living under the new society. It stresses militant organization—at first under dictatorship to be followed later by absolute self-government—class consciousness to be followed later by classlessness. Oddly enough this purposiveness so frequently the "death knell" of art has not prevented this frankly propagandistic literature from becoming a powerful, vital, frequently beautiful art.

Schillinger in a recent lecture on Russian music spoke about new folksongs that are in the process of being created around the machine, particularly the tractor, in the peasant community. We shall probably have to wait for some time before the beautiful songs of old Russia are adequately replaced by new ones—music, anyway, has always lagged behind times. But there is no question that in the field of children's literature, Russia has succeeded in

creating a new and true art—whether its utilitarian purpose is successful or not.

Needless to say the distribution of this literature is not left to chance. A highly organized system has been developed by the Soviet educational authorities to bring this literature to the erstwhile darkest corners of Russia. In addition to the regular facilities of libraries and reading rooms, travelling exhibitions using illuminated cylinders bring this literature to the attention of both city and village children in the most vivid way. More than that—at various points stations are established to study the reactions of the children to this literature, both as to content, form, color, and illustration; subsequent publications are based on the results of these studies.

Any article on the children's literature in Russia would be both unfair and incomplete without mentioning the illustrations that accompany these children's works. Here again Marshak's *Post* with its beautiful, yet highly realistic colorful illustrations is a fine and typical example. Russia has succeeded in enlisting its finest writers and artists (painters and illustrators) in its campaign in the education of the young. Here they find one field where purposiveness and propaganda is not destructive to their art. Possibly it is done at the expense of the arts in the adult fields. Here as in music we shall probably have to wait until the *sturm und drang* of the first few decades of the revolution have given place to an atmosphere more conducive to creative work.

Meanwhile, Russia's new children's literature is the finest refutation of the arguments so frequently brought forth that communism and the machine are antithetical and deadly to man's creative efforts. It is sufficient unto itself and a grand promise for the future.

SEX DIFFERENCES IN SCHOOL ACHIEVEMENT AMONG SPANISH-AMERICAN AND ANGLO-AMERICAN CHILDREN

FLOYD F. CALDWELL
State Teachers College, Chico, California
AND
MARY DAVIS MOWRY

For the purpose of orientation it seems advisable to review first the nature of the population represented in this study. The term Spanish-American is used to indicate those pupils who respond to a question of nationality with either of the terms "Mexican" or "Spanish." They belong to a group whose customs, language, and religion represent the blending of the more primitive Indian cultures with that of their Spanish conquerors. They have been American citizens for three generations but because of racial intolerances social attitudes still operate in many instances to segregate them, virtually enforcing upon them the preservation of their national customs and language. Because of the antagonisms which exist a rational treatment of the problems involved in Americanization is too seldom encountered. The schools have done a wonderful work but unfortunately the teachers are not entirely free from bias. There are, on the one hand, those who overestimate the handicap under which the Spanish-speaking child labors, and defend him blindly and obstinately, often to his permanent injury; while, at the other extreme, there are the contemptuous groups whose indifference or willful antagonisms operate to intimidate or to develop attitudes of sullenness and indifference.

The Anglo-American group is largely composed of descendants of Nordic and Celtic ancestry. A large proportion of the parents of the children have emigrated from other parts of the United States, but Texas has provided a larger percentage of

this group than any other State. Although the people coming from the North or East may not hold well-defined racial antagonisms when they arrive, unfortunately, the "border attitude" is not a difficult one to acquire. It is all too obvious to the careful observer that these prejudices and biases will not solve the problems involved. They must be solved through more rational thought and through more objective methods of study.

This study was made in southwestern New Mexico and, in order that a cross-section of the school population of this section might be obtained, samples were taken from the following types of districts:

District 1. A rural county system in an agricultural region
Districts 2 and 3. Small mining villages
District 4. A large mining town
District 5. A railroad town situated in a district that combines mining and agricultural interests

A total of 340 Spanish-American and 283 Anglo-American children were studied, and 4,646 tests of both the objective and the essay type were administered. The essay tests were so constructed that they carried an equal number of points as the objective tests and were over the same content material. All of the tests were checked and graded twice, the essay tests being graded by more than one grader in order that the subjective factor might be controlled to as large an extent as possible. Care was exercised so that the graders did not know whether they were grading tests of the Spanish-American or the Anglo-American children. In each case the objective tests were administered first so that if any practice effect occurs the essay test scores will be the ones affected.

The data obtained makes possible a study of (1) the relative numbers of Spanish-American boys and girls and of Anglo-American boys and girls who are attending school in grades three to eight, inclusive, (2) differences in mean scores earned

by Anglo-American boys and Anglo-American girls on objective and essay tests, (3) differences in mean scores earned by Spanish-American boys and Anglo-American girls on objective and essay tests, and (4) the relative amount of language handicap experienced by Spanish-American girls as compared to Spanish-American boys.

An examination of the data reveals a rather interesting condition. Whereas the Anglo-American girls exceed the boys in numbers enrolled in school by 16.03 per cent, the Spanish-American boys exceed the Spanish-American girls by 25.03 per cent. Although the number of cases may not warrant the drawing of general conclusions in this particular instance, nevertheless, it seems quite probable that these results are the products of different racial attitudes. The Anglo-Americans may be more inclined to encourage their boys to quit school and go to work in the mines, on the range, or in the fields, whereas the Spanish-Americans keep their girls at home or encourage them to contribute to the family support at an earlier age than is required of the boys.

SEX DIFFERENCES AND SCHOOL ACHIEVEMENT

Table I gives the tabulated results of scores earned on the English tests of both the objective and essay type by the two sexes of each racial group. An examination of the critical ratios or the results obtained by dividing the differences in means by the probable errors of these differences does not show that there are any statistically significant differences. Assuming a critical ratio of 4 as being necessary before a real difference exists it can be readily seen that there are no values in the critical ratio column that even approach the required standard.

It would seem reasonable to assume that responding to an essay test would require more knowledge and application of the English language than responding to the new-type objective

Table I

COMPARATIVE ACHIEVEMENT BY MEAN SCORES ON ENGLISH TESTS OF ANGLO-AMERICAN BOYS AND ANGLO-AMERICAN GIRLS VERSUS SPANISH-AMERICAN BOYS AND SPANISH-AMERICAN GIRLS

			Objective		*Essay*				*Criti-cal*
Grade	*Race*	*Sex*	*Mean*	*PE*M	*Mean*	*PE*M	*Per Cent Loss*	*Per Cent Gain*	*Ratio*
III	AA	boy	29.50	1.33	30.50	1.22		3.39	.54
		girl	28.33	1.91	31.96	.84		12.81	1.74
	SA	boy	27.79	1.28	28.00	1.17		.76	.16
		girl	28.51	1.02	30.24	.69		6.23	1.40
IV	AA	boy	21.30	2.23	22.90	2.31		7.51	.50
		girl	20.94	1.84	22.94	1.94		9.57	.75
	SA	boy	16.33	1.31	17.63	1.24		7.96	.72
		girl	18.11	1.71	19.64	1.64		8.45	.65
V	AA	boy	34.97	1.24	32.00	1.39	8.52		1.60
		girl	37.79	.98	36.00	1.15	4.71		.85
	SA	boy	31.82	1.04	30.96	1.11	4.45		.57
		girl	30.36	1.06	28.14	1.12	8.50		1.44
VI	AA	boy	35.00	1.69	39.00	1.77		11.43	1.63
		girl	40.53	1.58	45.18	1.72		11.47	1.95
	SA	boy	32.75	1.33	33.81	1.39		3.24	.55
		girl	30.53	1.29	31.10	1.32		1.87	.31
VII	AA	boy	76.21	5.64	82.21	5.78		7.87	.75
		girl	77.52	4.60	84.00	4.74		8.36	.98
	SA	boy	69.30	3.33	68.40	3.20	1.31		.20
		girl	70.00	4.42	63.80	4.14	8.86		1.02
VIII	AA	boy	33.81	2.45	36.09	2.25		6.74	.69
		girl	40.88	2.93	45.00	2.32		10.28	1.10
	SA	boy	28.91	1.54	31.64	1.59		9.44	1.23
		girl	28.80	3.71	29.65	1.94		2.95	.20

examination. In other words, the former involves more writing and application of English as well as a more definite recall of vocabulary and language forms. Due to this fact there might exist a sex difference in responding to the two types of tests. Those factors which might operate to cause a sex difference with the Spanish-American group might be due to two causes: (1) the Spanish-American boys mingle more freely with the Anglo-Americans on the streets and in athletic competition and therefore learn the language better; (2) the girls are in the home more than the boys and in these homes English rarely is spoken.

Here the children constantly hear and use their native language.

Concerning sex differences in mental and emotional traits as denoted by the trend of findings in psychological experimentation, Garrett says:[1] "Girls almost always do better than boys on vocabulary tests, as well as on tests involving language usage and verbal association." This might lead one to expect to find a sex difference in the manner of response with the Anglo-Americans also.

Although, as has been pointed out, there are no differences which may be considered significant there are certain tendencies in the behavior of scores that seem to indicate slight sex difference trends.

For instance, in the third grade, it can be noted that there is a tendency for the Spanish-American girls as well as for the Anglo-American girls to gain slightly more than the boys on the essay test, but in the fourth grade this relative gain is considerably reduced. In the fifth grade, Anglo-American girls lose less than Anglo-American boys on the essay test while the reverse is true for the Spanish-Americans. On the essay examination Anglo-American girls of the fifth grade lose less on mean score to about the extent that Spanish-American girls lose more than boys. Although the Spanish-American boys lose on mean scores, their loss is not so great as is that of the girls of the same nationality. Results for the seventh and eighth grades are similar to those of the sixth grade. With the Anglo-American, if upon taking the essay test either sex gains a larger percentage on mean score, it is the girls, and with the Spanish-Americans it is the boys who gain more or lose less upon taking the old-type examination.

Table II shows similar results for history. Some difference in achievement is indicated, however. In English, regardless of race, scores made by girls on objective tests usually are higher

[1] Henry E. Garrett, *Great Experiments in Psychology* (New York: The Century Company, 1930), p. 86.

TABLE II

COMPARATIVE ACHIEVEMENT BY MEAN SCORES ON HISTORY TESTS OF ANGLO-AMERICAN BOYS AND ANGLO-AMERICAN GIRLS VERSUS SPANISH-AMERICAN BOYS AND SPANISH-AMERICAN GIRLS

Grade	*Race*	*Sex*	*Objective* *Mean*	*PE*M	*Essay* *Mean*	*PE*M	*Per Cent Loss*	*Per Cent Gain*	*Critical Ratio*
V	AA	boy	100.61	3.90	101.94	3.77		1.32	.25
		girl	88.87	3.44	92.07	3.60		3.60	.64
	SA	boy	71.01	4.22	58.23	3.98	18.00		2.21
		girl	65.63	4.26	51.93	3.66	20.87		2.46
VI	AA	boy	49.21	4.02	50.82	3.75		3.27	.29
		girl	48.02	3.37	59.06	3.60		22.97	2.24
	SA	boy	29.80	3.23	33.93	3.16		13.86	.92
		girl	26.08	2.77	28.90	2.63		11.24	.74
VII	AA	boy	37.00	3.17	41.68	3.14		12.38	.98
		girl	39.00	2.44	44.98	2.59		15.08	1.68
	SA	boy	37.60	2.85	38.00	2.43		1.06	.11
		girl	36.01	2.81	30.57	2.10	15.17		1.55
VIII	AA	boy	43.00	1.94	43.63	1.69		1.47	.25
		girl	41.50	2.13	42.80	1.88		3.13	.45
	SA	boy	35.26	1.76	34.13	1.53	3.20		.48
		girl	33.64	2.12	29.86	1.35	10.91		1.55

than those of the boys. In history, on the other hand, the boys score higher than the girls on the objective tests.

CONCLUSIONS

1. Whereas the Anglo-American girls exceed the boys in numbers enrolled in school by 16.03 per cent, the Spanish-American boys exceed the Spanish-American girls by 25.03 per cent. This fact would indicate a difference in social values placed upon education by the two racial groups concerned.

2. Although the critical ratios indicate that there are no sex differences, in responding to the two types of tests, sufficiently large to be considered statistically significant, there are certain tendencies which may indicate (a) that Anglo-American girls earn slightly higher scores on the essay tests than Anglo-American boys, (b) that Spanish-American boys earn a slightly higher score on the essay tests than Spanish-American girls.

VOCATIONAL GUIDANCE: SOME BASIC CONSIDERATIONS

HARVEY C. LEHMAN
Ohio University
AND
PAUL A. WITTY
Northwestern University

Current periodical literature abounds with fervid discussions of planning—city planning, community planning, regional planning, and production planning. Many present-day economic difficulties are due in part to failure to consider production and consumption adequately. The result of course has been that the production of goods often is unrelated to consumer demands.

It is apparent that business ceases to be profitable when the producing capacity of industry exceeds marketable demands. When this condition exists for any appreciable length of time, millions become unemployed. So, too, when an occupation becomes overcrowded, disastrous economic consequences and personal maladjustment follow. It seems, therefore, that efforts should be made so to guide youth that vocational ambitions may be frequently realized, if these are based upon the individual's ability and interest in an occupation in which there is a fair chance for entrance. And, certainly, it is reasonable that the school should consider children's vocational ambitions in terms of society's needs. Through such endeavor, individual and social gains may accrue.

That we are succeeding to a limited degree only in vocational guidance is easily portrayed. One writer has estimated that in the United States we have almost five times as many physicians as we really need.[1] And the geographical distribution of physicians is unplanned and socially unfortunate.

[1] T. S. Harding, "Overproduction in the Professions," *Current History*, 1931, 34, pp. 712-720.

. . . in 1927 South Carolina and Montana had only 71 physicians per 100,000 people, while healthy California had 200.

In many rural communities there is only one dentist per 4,000 population. While California had 103 dentists per 100,000 population in 1928, Mississippi had but 19.[1]

The lack of proper production and subsequent allocation of physicians brings both individual and social disaster. Thousands of physicians are today struggling to earn a living in hopelessly overcrowded districts. In contrast to the overcrowded condition of the medical profession is the more fortunate state of the veterinarian occupation. Harding estimates that it will require four or five years at the present rate of increase to make up our present-day shortage in the latter line of endeavor.

Last year there were 137 graduates from our twelve accredited veterinary schools, the Bureau of Animal Industry requiring the services of 100 of them alone—if it could get them. It will take four or five years at the present rate of increase to make up the deficit.[1]

More efficient public service could be rendered if some agency could be devised which could plan and control entrance into various lines of work. The present writers are by no means certain that the schools can so anticipate vocational needs (and analyze ability with sufficient precision) as to make vocational guidance a truly profitable social enterprise for the school. They do assert, however, that children should be enabled to make vocational choices with full knowledge of vocational demands in their possession. To what extent are choices being made in terms of economic needs? This paper will survey briefly the occupations which typical boys of school age think they will follow; the writers will then comment upon the usefulness of the choices in attempts at guidance, and also upon the probable efficacy of the choices.

METHOD

The Lehman Vocational Attitude Quiz was given to a large group of school children in Topeka, Kansas, and in Kansas

[1] Harding, *op. cit.*

City, Missouri. The Vocational Attitude Quiz consists of a comprehensive and catholic list of two hundred occupations. First, the children are asked to check *only* those occupations in which they are willing to engage as life work. They are then asked to indicate, among other things, the one occupation which they most likely will follow. Full allowance should be made for the unreliability of the children's answers. The writers assume a fair degree of reliability for this simple response item. In this paper, *the writers are not concerned with the check list and its reliability;* they are dealing with the responses of the children to a simple direct question.

From the United States Census Report for 1920,[2] the writers ascertained the total number of white male workers engaged in various kinds of endeavor. For six age levels coefficients of correlation were computed between the total number of white male workers engaged in each occupation and the number of white boys expecting to enter each. The numbers of workers gainfully employed in more than 140 occupations were ascertained. Then, the number of boys (in each of six age groups) who expected to enter each occupation was ascertained. Parallel column presentation, therefore, showed the agreement between the frequency of occupational expectation and the frequency of occupational demand (in terms of the 1920 census figures).

If the agreement were close, the occupations having the largest number of workers gainfully employed would have been those which children mentioned most frequently as their probable vocational careers. Marked discrepancies would have been revealed clearly by consideration of the number of occupations in which large numbers of persons were employed but in which few boys expected to engage. The amount of agreement was expressed statistically by the coefficient of correla-

[2] Data for the 1930 census were not available at the time this manuscript was prepared. It is doubtful, however, that the 1930 data would have led to many significant differences in the findings reported herein.

tion between the two variables. Coefficients were worked out for six age levels. One would not anticipate that young children could or would make occupational choices to any marked degree consonant with society's demand for workers. However, if effective guidance (and teaching about occupational needs) occurs, one would assume that coefficients would become increasingly significant with advance in chronological age.

RESULTS

Table I shows occupational groups which include relatively large numbers of workers; these are occupational groups in which comparatively few boys expected to enlist. Table II sets forth occupational groups which include few workers; nevertheless, relatively large numbers of boys thought that they would enter these. The results were anticipated in many instances. Few schoolboys expect or want to become day laborers or to engage in any other form of humble service. Indeed, the desire to escape such a vocational fate is doubtless one reason why many boys are attending school.

The question naturally arises: To what extent will it be possible for the coming generation of boys to escape entering the types of work which most of them hope to avoid? For example, in 1920 more than 9,000,000 workers were engaged in the 15 unpopular (according to the boys' reports) occupations listed in Table I, and scarcely more than 1,000,000 workers were engaged in the 10 popular occupations listed in Table II. Only 723 boys indicated that they expected to enter one of the occupations listed in Table I, whereas 6,470 stated that they anticipated entering one of the occupations listed in Table II.

The number of workers now engaged in various lines of endeavor is of course an inadequate measure of the number of individuals that are actually needed, or that even are able to earn a living therein. Some occupations are at present badly overcrowded, and some may be experiencing a shortage. This

situation will not be alleviated if the vocational ambitions of these boys are fulfilled, for, collectively, these boys are most frequently expecting to enter the very occupations which in 1920 (and probably in 1930) were most overcrowded.

Table I

OCCUPATIONAL GROUPS WHICH INCLUDE MANY WORKERS BUT WHICH RELATIVELY FEW BOYS EXPECT TO ENTER

Day laborers
Salesmen and store clerks
General clerical work
Miner (miscellaneous)
Carpenter or cabinet maker
Draymen, teamster, or truck driver
Painter or paper hanger
Bus driver or chauffeur
Mechanic
Bookkeeper
Butcher or meat packer
Stationary engineer
Grocer
Shoemaker or repairer
Plumber

Table II

OCCUPATIONAL GROUPS WHICH INCLUDE RELATIVELY FEW WORKERS BUT WHICH MANY BOYS EXPECT TO ENTER

Aviator
Cowboy (for young boys only)
Civil engineer or surveyor
Electrical engineer
Lawyer
Doctor (physician, surgeon, or specialist)
Fireman or train engineer
Musician
Soldier
Architect

Tables I and II include 25 occupations. If we omit "day laborers" from our computations, 24 remain. For these 24 occupations, coefficients of correlation between the number of workers engaged in each and the number of boys expecting to follow each were computed. For the various age groups, the coefficients of correlation are presented in Table III. For these 24 occupations the relationship between number of workers and number of aspirants was linear in each age group. Table III reveals that most of the coefficients of correlation are of significant size and that all are negative. Striking indeed is the fact that the coefficients are comparable for young and for older boys. The coefficients for the higher C.A. levels appear particularly significant. They reflect again little change in efficacy of vocational choice (in terms of demand) with advance in C.A. Up to this point the writers' findings are corroborative of the findings of Proctor[3] and others.

TABLE III

CORRELATIONS BETWEEN NUMBERS OF WHITE WORKERS IN EACH OF 24 OCCUPATIONS AND NUMBERS OF BOYS EXPECTING TO ENTER EACH

Ages	*r*	*Number of boys*
9 and 10	—.37	1500
11 and 12	—.47	876
13 and 14	—.14	836
15 and 16	—.34	545
17 and 18	—.28	190
8 to 18, inclusive	—.44	4354

Since the foregoing correlations are based upon data regarding 24 occupations only—extremely popular and extremely unpopular occupations—it would be invalid to conclude that

[3] W. M. Proctor, *Psychological Tests and Guidance of High School Pupils.* Journal of Educational Research Monographs, No. 1 (Bloomington, Illinois: Public School Publishing Company, 1923), 123 pp.

they are indicative of what would be found if a large number of occupations were studied. An attempt was made, therefore, to study a relatively large number of occupations.

It was necessary to omit from our calculations some of the occupations listed in the Vocational Attitude Quiz because the terminology in the Quiz differed in some instances from that in the United States Census Report. Data for a few occupations were not usable for other reasons. For example, although there are a relatively large number of farm laborers in the United States, such workers are rarely trained in city schools. Since few of the city boys studied by the writers expressed the intention of becoming farm laborers, the data for this occupation are omitted entirely in the calculations.

A more valid study would probably have considered only the number of white male workers engaged in certain occupations *in Kansas and Missouri.* The census did not provide these data; the census report for the separate States includes combined figures for all of the racial groups. Since some kinds of work are performed largely by one race only, and since under modern conditions numerous workers migrate from the place of their birth (particularly in Kansas and Missouri), the writers decided that a study of data for the total number of workers engaged in various kinds of work in Kansas and Missouri (without regard for race differences) would prove less valid than a study of data for all white workers distributed over a wider geographical area. For this reason they used the data for white workers throughout the entire country.

One hundred thirty-eight occupations were identified which permitted comparison of the number of white boys expecting to enter each and the number of white male workers engaged in each.

Results of the study are set forth in Tables IV to VI inclusive. Table IV presents coefficients of correlation between num-

bers of white workers engaged in 138 occupations and numbers of white boys expecting (according to the boys' own statements) to enter each occupation. The coefficients of correlation are zero at each age level, there being no change in the r's with increase of maturity. It is evident at once that these data corroborate those presented in Table III.

TABLE IV

CORRELATIONS BETWEEN NUMBERS OF WHITE WORKERS IN EACH OF 138 OCCUPATIONS AND NUMBERS OF BOYS EXPECTING TO ENTER EACH

Ages	*r*	*Eta xy*	*Eta yx*	*Number of boys*
9 and 10 . . .	—.01	.98	.98	2317
11 and 12 . . .	—.009	.98	.98	2735
13 and 14 . . .	—.009	.97	.99	2443
15 and 16 . . .	—.007	.93	.99	1832
17 and 18 . . .	+.0003	.87	.99	644
8 to 18, inclusive .	—.004	.98	.78	10630

But the 138 occupations included in the calculations for Table IV probably include many types of work which fall outside the range of boys' experiences. Consequently, the boys' attitudes towards them are probably based upon little or no first-hand knowledge. As a group the boys appear to have no strong prejudice either for or against some of the occupations. Their expectations to enter the various lines of work may be based in many instances upon trivial or chance factors. In any event it is exceedingly doubtful that the vocational ambitions of the boys have much relationship to knowledge of consumer requirements or social needs. Indeed, in so far as the present writers are aware, the basic data that would be needed for passing judgment upon future social needs simply are not available.

Table V presents the coefficients of correlation between numbers of white workers in 137 occupations and numbers of white

boys expecting to enter each. Table V differs from Table IV only in that data for the day laboring group are omitted from Table V.

Table V

CORRELATIONS BETWEEN NUMBERS OF WHITE WORKERS IN EACH OF 137 OCCUPATIONS AND NUMBERS OF BOYS EXPECTING TO ENTER EACH

(Same as Table IV except that day laborers are omitted from the calculations)

Ages	*r*	*Eta xy*	*Eta yx*	*Number of boys*
9 and 10 . . .	+.02	.98	.96	2316
11 and 12 . . .	—.007	.98	.97	2725
13 and 14 . . .	+.012	.97	.97	2437
15 and 16 . . .	+.029	.93	.96	1829
17 and 18 . . .	+.048	.87	.96	641
8 to 18, inclusive .	—.003	.98	.84	10604

Table VI presents the coefficients of correlation between numbers of white workers in 113 occupations and the numbers of white boys expecting to enter each. Table VI differs from Table IV only in that the 25 occupations listed in Tables I and II are omitted.

Table VI

CORRELATIONS BETWEEN NUMBERS OF WHITE WORKERS IN EACH OF 113 OCCUPATIONS AND NUMBERS OF BOYS EXPECTING TO ENTER EACH

(Same as Table IV except that the 25 occupations listed in Tables I and II are omitted from the calculations)

Ages	*r*	*Eta xy*	*Eta yx*	*Number of boys*
9 and 10 . . .	+.08	.68	.44	817
11 and 12 . . .	+.08	.71	.60	1859
13 and 14 . . .	+.05	.64	.51	1607
15 and 16 . . .	+.08	.62	.44	1287
17 and 18 . . .	+.05	.56	.41	454
8 to 18, inclusive .	+.08	.73	.61	6276

On the whole it seems from the foregoing data that, at the present time, the boys' choices of occupation, considered in terms of social or consumer requirements, are being made almost as blindly as would be the case if the names of the occupations were chosen by pure chance. This appears to hold at the higher age levels to the same degree as at the lower age levels (where the condition might well be expected).

FURTHER REMARKS

The writers have shown elsewhere that there is a low positive relationship between intelligence measures and occupational choice.[4] And the tables presented in this paper show clearly that present-day boys seldom think they will enter those occupations for which there is even an appreciable demand. Indeed, the boys are apparently clinging to illusory hopes that they will be able to enter a few highly remunerative and highly respected occupations. This fact is portrayed clearly in Tables I and II. It is set forth tersely in the following statement which was prepared by a school superintendent who was asked to explain why so many of his pupils were planning to become engineers.

> For the first time in the history of the town, a few blocks were paved here last summer. Many of the boys worked on the paving. The engineer in charge wore good clothes, smoked expensive cigars, and made dates with one of the high-school teachers. On a hot day I can readily see how a boy not used to such hard work would be perfectly willing to trade places with the engineer, the only man in the outfit who apparently had a soft job.[5]

The vocational counselor may state that these facts are eloquent testimony for the validity of his assertions that counseling is highly desirable. Surely, occupational interests of chil-

[4] P. A. Witty and H. C. Lehman, "A Study of Vocational Attitudes and Intelligence," *The Elementary School Journal*, 1931, 31, pp. 735-746.

[5] C. A. Fulmer, *Vocational Education: The Choice of a Life Work.* Bulletin No. 16, March 1928. Nebraska State Board for Vocational Education, Lincoln, Nebraska, p. 46.

dren (particularly of ages 12 to 18) are of value and interest to the counselor. Nevertheless, these choices must be considered in terms of their practical worth. One measure of practical value is the extent to which the choices correspond to society's needs.

One fact stands out clearly from the results of this study: The occupations which boys think they will enter simply are not those which they *can* enter. Many of the occupations which boys wish to avoid will be the very ones which some must enter. It would seem, therefore, that spontaneous occupational choices should not be viewed optimistically nor employed indiscriminately as bases for direct recommendation of occupational endeavor. Nevertheless, occupational information, including clear-cut and unbiased presentations of economic conditions, should be provided for *all* young people, in order that they may become conscious of the *need for intelligent economic planning* and of the difficulties which will inevitably confront them in their attempts at occupational adjustment. The data in this paper suggest that there is little awareness on the part of the children of economic demands, and probably of economic conditions in general. This holds for children in all the age groups studied. The writers have no data which show at what ages occupational data should be presented to school children. Surely, boys of ages 14 to 18 should be made aware of the present-day demands, and emphasis concerning the status of employment (and of unemployment) should be given. The data in this paper suggest that, in so far as one outcome (vocational ambition) is concerned, the older children fare no better in the school (if their responses may be considered indicative of understanding and foresight) than do the younger children.

OCCUPATIONAL ADJUSTMENT OF COLLEGE GRADUATES AS RELATED TO EXTENT OF UNDERGRADUATE SPECIALIZATION

VIVIAN T. SMITH
Professor of Education
Huron College, Huron, South Dakota

By means of a questionnaire investigation an effort was made in March 1933 to determine the degree of correspondence between occupational activities and undergraduate major specializations of graduates of the University of Illinois in the class of 1923. As a part of the study a comparison was made between the graduates with many hours in their major and those with few hours in their major. This was done for 856 graduates of five colleges on the Urbana campus for that year.

The occupational activities of the graduates during the ten-year period 1923-1932 were ranked in relation to their majors by a committee of ten professors in each college. The ranks assigned by the judges had the following values: (1) in same field as major; (2) in a field closely related to the major; (3) in a field remotely related to the major; (4) in a field unrelated to the major. The mean of the ten ranks assigned by the judges was taken to be the index of correspondence of the occupation.

The number of months of occupational activity in each rank was computed for graduates having many credit hours in their major and for graduates having few credit hours in their major. With the exception of the College of Engineering, the graduates with few hours in their major included only those having from twenty to twenty-five credit hours in their specialization field. Graduates of the College of Engineering who had from twenty to forty hours in their major curricula were considered to have few hours. With the exception of the College of Commerce, the graduates with many hours in their major included only those

with fifty or more credit hours in their specialization field. Graduates of the College of Commerce who had forty or more hours were considered as having many hours. It is thus seen that "few" hours was always less than forty and "many" hours was always forty or more.

The numbers of months of activity upon which these percentages were based were of considerable size in each of the five colleges. The number of months for graduates of the College of Agriculture with many hours in the major was 1,403, for the College of Commerce it was 1,017, for the College of Education it was 1,929, for the College of Engineering it was 5,110, and for the College of Liberal Arts and Sciences it was 4,955. The number of months of occupational time for graduates with few hours in their major was 2,719 in agriculture, 4,072 in commerce, and 2,353 in eduation, 2,885 in engineering, and 5,196 in liberal arts and sciences.

Table I indicates for graduates of each college the percentages of occupational time in each correspondence group by graduates with many hours in their major and by graduates with few hours in their major. It is apparent that there was a consistent difference in all colleges between the degree of correspondence for occupations of these two types of students, the graduates with many hours in their major devoting a greater percentage of their time to occupations in the field of their specializations and a smaller percentage to occupations unrelated to their major than did graduates with few hours in their specialization field. This difference was particularly pronounced in the Colleges of Education and Liberal Arts and Sciences. In the College of Education 79 per cent of all time of graduates with many hours was in the same field as the major whereas only 54 per cent of the time of those with few hours was in the field of the major. In the College of Liberal Arts and Sciences 61 per cent of the time of those with many hours was in the field of their major whereas only 20

per cent of the time of those with few hours was in the field of the major. In the Colleges of Agriculture, Commerce, and Engineering, where the differences between the numbers of credit

TABLE I

Percentage of Time Devoted to Occupations in Each Correspondence Group by Graduates with Many Hours and by Those with Few Hours in their Major

COLLEGE	OCCUPATIONS IN SAME FIELD AS THE MAJOR	OCCUPATIONS CLOSELY RELATED TO THE MAJOR	OCCUPATIONS REMOTELY RELATED TO THE MAJOR	OCCUPATIONS UNRELATED TO THE MAJOR
Agriculture				
many hours . .	72	8	10	10
few hours . . .	61	9	13	7
Commerce				
many hours . .	42	41	16	1
few hours . . .	30	34	31	5
Education				
many hours . .	79	0	11	10
few hours . . .	54	2	33	11
Engineering				
many hours . .	80	10	10	0
few hours . . .	73	9	16	2
Liberal Arts and Sciences				
many hours . .	61	10	19	10
few hours . . .	20	12	54	14
Total (5 colleges)				
many hours . .	70	11	13	6
few hours . . .	42	15	33	10

hours in the majors of different graduates varied much less, the differences in percentages in each correspondence group were not so striking. However, the correspondence was greater in these colleges for graduates with a large number of credit hours than for graduates with a small number of credit hours in their major.

It is thus seen that in each of the five colleges and in all five taken together a greater percentage of occupational time was devoted to activities in the field of the major by graduates having many credit hours in their specialization field than was devoted to occupations of that rank by graduates having only a few hours in their major field. It is probable that this higher correspondence was largely due to interest in a certain type of activity and in training for that activity.

Merely increasing the number of credit hours in a given specialization might not result in increasing the correspondence between that training and the occupation to be followed later. It is probable, however, that the degree of correspondence could be raised by aiding the student to know his own interests and aptitudes and by assisting him to select his educational courses and to choose his occupations in accord with those interests and abilities.

RESEARCH PROJECTS AND METHODS IN EDUCATIONAL SOCIOLOGY

In order that this section of THE JOURNAL *may be of the greatest possible service, its readers are urged to send at once to the editor of this department titles—and where possible descriptions—of current research projects now in process in educational sociology and also those projects in kindred fields of interest to educational sociology. Correspondence upon proposed projects and methods will be welcomed.*

RESEARCH AS BASIS FOR RECREATIONAL PLANNING

The Leisure Time Conference of the Council of Lower West Side Social Agencies, New York City, has two main objectives:

1. *The Fact Finding Researches*—to make available for the use of all agencies data which will give an adequate scientific foundation for the organization of leisure-time and recreational activities.

2. *The Development of an Experimental Program*—in the direction of a more systematic planning of leisure-time and recreational programs on the part of the whole community, has been advanced during the last month and a half, in the following ways:

Four main studies are in progress at this time; namely:

1. A leisure-time study of approximately 2,000 school children of the Lower West Side to determine how they spend their time
2. Census of certain selected blocks to determine how many children in these blocks are not being reached by any leisure-time agency and to determine the needs for recreational facilities
3. An enumeration and description of leisure-time facilities on the Lower West Side in order to make possible a leisure-time information bureau and recreational advisement
4. A survey of all children now enrolled in recreational agencies, which will indicate the distribution of their

patrons, and of the areas not being reached by present organizations

These studies are under the direction of research students and only accepted research methods are employed. Civil Works Service workers are assigned for material gathering, interviewing, and carrying out of specific tasks which are carefully outlined by the directors.

While decided progress in each of these studies has been made, it is not expected that they can all be completed within this year and other studies will be necessary in realizing the program of the Leisure Time Conference.

In developing the organization for carrying out the objectives of the Leisure Time Conference, three phases of the work are under way—a motion-picture program, a play-street project, and a parent-education campaign.

The immediate work of the Lower West Side Motion Picture Council has been the recruiting of organization and individual memberships among the social agencies of the area for the purpose of working out a community approach to the study and use of the motion picture as an educational force in the lives of children. One hundred and five organizations have been contacted; 34 have signified their willingness to become coöperating members. Publications and bulletins have been issued covering the following points:

a) Immediate objectives of Council, for distribution in making new contacts
b) Information concerning the use of 16 mm. films and projectors; also questionnaire regarding the use of the 16 mm. motion pictures by the social agencies of the Lower West Side
c) *Photoplay Guide*, listing recommended pictures playing during the current week in theaters of the area

A plan of coöperation is being worked out with the Hudson

Park Library and the Eighth Street Playhouse for the purpose of stimulating interest in showing pictures of literary value.

Workers are at this time engaged in special research on problems related to the motion picture and the leisure time for children. A record of all motion pictures shown in this district provides a systematic rating by which progress records are kept. This information is supplied in advance of program showings and is used for compiling the photoplay guide which is issued bimonthly.

With the slogan that "The occupation of leisure time is one answer to the crime problem," the Leisure Time Conference has further carried out one of its immediate objectives by organizing the free time of children on play streets in the Lower West Side district. In coöperation with the Crime Prevention Bureau of the Police Department, seven blocks in the district were set aside and organized into play areas.

The first play areas were opened May 22. Organized play was carried on from 3.00 p.m. to 6.00 p.m. while school was in session. After the closing of the schools the hours have been from 10.00 a.m. to 9.00 p.m. six days a week. Interest has centered chiefly around a stickball tournament played by what is known as the "Police Athletic League." Systematic organization of the Police Athletic League provides a means of enrolling each boy by name and keeping records of his attendance, behavior conduct, etc., and furnishes a way of learning something about his social and family background. To the boy it means a score or rating card and information is gladly given.

Boys attaining the highest rating in attendance and attainments were taken to the American and National League games. During the summer, over 900 boys attended games at the Stadium and Polo Grounds, under supervision. Other special activities included trips to the Bronx Zoo, Botanical Gardens,

City swimming pools, and gymnasiums; and participation in interplayground features.

Besides the stickball tournament a well-rounded program of games and activities is carried on. Six hundred and fifty boys were enrolled in the stickball tournament; 700 boys participated in the stickball tournament; the daily attendance of children in other games and activities was approximately 300; and the daily attendance on play areas totalled approximately 1,000.

The need for extension of play projects became more evident as the above studies pointed up the gaps in present facilities.

The third phase of the experimental program of the Leisure Time Conference consists of a parent-education campaign. A group representing the public schools, parent associations, and community agencies has formed a provisional committee to promote parent education and organization to facilitate more adequate leisure-time activities for children in the Lower West Side. Several workers have been engaged in research on background material, preparatory to organization of parents associations in public schools not possessing such groups.